Institute of Astronomy

Image inset credit: X-ray: NASA/CXC; Infrared: ESA/Webb, NASA & CSA, P. Zeilder, E.Sabbi, A. Nota, M. Zamani; Image Processing: NASA/CXC/SAO/L. Frattare and K. Arcand

2025-26

UNIVERSITY OF CAMBRIDGE
Institute of Astronomy

PhD HANDBOOK

Table of Contents

Section 1 – The Institute of Astronomy

Welcome

It gives us much pleasure, as Co-Directors of the Institute of Astronomy, to welcome you to postgraduate life at the IoA. We hope you will find it an enriching experience and a great environment in which to conduct your research.

Scientific creativity thrives on interaction and at the IoA there are numerous opportunities for people to get together and share scientific ideas. We hope that as well as becoming fascinated with your own research quest, you will be stimulated by the breadth of science being pursued here. The wide range of talks, both by locals and our many visitors, for example at our seminar and colloquia series, will give you insight into the most exciting areas of contemporary astronomy. But chance conversations, for example at one of the regular morning coffee or afternoon tea breaks – both amongst your peer group and more widely in the IoA – are likely to be equally valuable. And don't forget the possibilities for passing your own knowledge to others – there are plenty of opportunities for public outreach and for teaching and mentoring undergraduate students.

Postgraduate students in the IoA have an excellent track record when it comes to submitting their theses on time, so clearly the buzz of activity around the IoA cannot be too distracting. Nevertheless, there may well be times when it's hard to achieve the right balance between your own research and acquiring a broader astronomical education (not to mention the rest of life beyond the IoA). If you become worried about setting your priorities, don't hesitate to get guidance from those around you, especially your supervisory team or the Director of Postgraduate Education. We are all here to help you.

Some of you will be embarking on what will turn into a lifetime of astronomical research, while for others of you this time will take you deeply into a fascinating subject before you go on to other great things beyond academia. Whatever your journey after the IoA, we hope you have a very happy and productive time here.

Co-Directors and Heads of Department: Cathie J Clarke & Mark Wyatt

The Institute of Astronomy

The IoA is part of the Faculty of Physics and Chemistry within the School of the Physical Sciences of The University of Cambridge.

The Institute of Astronomy (IoA) came into being in 1972 by the amalgamation of three institutions which had developed on the site. These were the Cambridge University Observatory which was established in 1823, the Solar Physics Observatory (1912) and the Institute of Theoretical Astronomy (1967).

The IoA is a department of the University of Cambridge and is engaged in teaching and research in the fields of theoretical and observational Astronomy. A wide class of theoretical and observational problems are studied, ranging from the study and observations of extrasolar planets to supermassive black holes and quasars and of the evolution of the whole Universe.

The Institute comprises about 90 postdoctoral research staff (including academic staff and senior research fellows), 55 postgraduate students and 25 professional services support staff. The IoA has close links with the Cavendish Astrophysics Group as well as with the Department of Applied Mathematics and Theoretical Physics, all of which are conducting complementary research programmes here in Cambridge.

Important Postgraduate contacts at the IoA

The Director of Postgraduate Education

If you have any concerns of an academic nature, then the first person for you to seek out is the Director of Postgraduate Education. Oli Shorttle (H17, shorttle@ast.cam.ac.uk).

Student Administration Office

Debbie Peterson (post-graduate.admin@ast.cam.ac.uk) is the Senior Student Administrator and a departmental Wellbeing Advocate. Based in H4, she oversees all aspects of Postgraduate Student administration from pre-admission enquiries, interviews, admissions, current student assessment processes, right through to the production of your PhD dissertation and examination. Debbie can advise on funding for Conferences, observing trips etc., will arrange flights and can help you with the form-filling and sometimes complex University paperwork. If you encounter any problems or have concerns of a non-scientific nature during your time at the IoA you should talk to Debbie in the first instance. She will often be able to help and, if not, she will certainly be able to point you to the most appropriate person. If you have any problems interacting with specific academic staff or have problems in your relationship with your supervisor you should also inform Debbie or the Director of Postgraduate Education (Oli Shorttle) at an early stage.

Debbie is on-site Monday & Tuesday and works from home on Wednesday & Thursday. Friday is a non-working day.

Carolyn Young, (admissions@ast.cam.ac.uk) is the departmental Postgraduate Admissions & Examinations Co-ordinator. She shares an office with Debbie and deputises for her in her absence.

Michelle Fell (undergraduate.admin@ast.cam.ac.uk) is the departmental Undergraduate Student Co-ordinator and is based in the teaching office, she also oversees the Summer Intern Programme. If you are supervising for the IoA's undergraduate teaching programme and need to ask questions, Michelle would be the person to speak to.

Patrick Selby (pslu.admin@ast.cam.ac.uk) is the Planetary Science and Life in the Universe MPhil Course Coordinator and sits in the teaching office.

Reception, Housekeeping & Catering

Reception is located at the main entrance to the Hoyle Building.

Bev Woolston is the IoA Receptionist and will be glad to try and help with any problem you might have in general day-to-day life in the IoA including, but not limited to:

- Managing the postal system and the switchboard
- Setting up your email to enable scanning
- Ordering stationery
- Room Bookings
- Programming your University card to allow access to the Institute

You can contact Bev by emailing recept@ast.cam.ac.uk.

Stephen Lawson is the IoA's Building Services Technician & Assistant Safety Officer. If you have any problems with your office or notice anything that is broken, please email repairs@ast.cam.ac.uk.

Emma Hyde, Anita Hawkins and Rafael Da Rosa form the IoA Catering Team and run the morning and afternoon Coffee breaks and any event where food and drinks are provided. The Housekeeping Team can be contacted at housekeeping@ast.cam.ac.uk.

The IoA Computing Group

Neil Millar, Graham Bell, Cormac O'Connell, and Deryck Thake are responsible for the Science Cluster computers, including the network and most of the software available. The IoA Computing Group are best contacted via email to Helpdesk or via phone on 66666. Helpdesk uses a support system called RT, which generates tickets to handle individual requests. It is monitored by the support team during normal working hours and the system keeps track of faults that haven't been fixed, maintains records of what has been done already and provides historical notes for methods of fixing similar problems in future.

Key Departmental Contacts

Angela Macharia (departmental.administrator@ast.cam.ac.uk) is the Department Administrator and is responsible for overall administration of the IoA including finance, personnel and welfare.

Ruby Ng (hodpa@ast.cam.ac.uk) Executive Assistant to the Co-Directors & Heads of Department.

David Savidge (dws27@cam.ac.uk) is Deputy Administrator with particular responsibility for Finance, Buildings and Grounds and is also the Safety Officer. David is Angela's deputy when she is absent or not available.

Susan Leatherbarrow (sl@ast.cam.ac.uk) is the Accounts Clerk. She assists David in the Finance Office with the processing of accounts and financial management.

Ashley Worman and Helen Thirkettle (hr@ast.cam.ac.uk) are the Senior HR Coordinators and have particular responsibility for personnel and training issues, including immigration, visas, right to work and room allocation issues.

Steven Brereton (kavlisec@ast.cam.ac.uk) is the Administrative Co-ordinator at the Kavli. Contact him with any queries relating to the Kavli Institute, including events, visits etc.

Amanda Smith is the Graphics Officer at the IoA. Amanda can make pictures, diagrams and posters, including very large ones, look as good as possible for presentation and publication. In addition, she provides bespoke illustrations, graphics and print-ready brochures and can also liaise with the AVMG, a University of Cambridge Audio Visual service, if you require a service that she's not able to offer in-house.

Matthew Bothwell (bothwell@ast.cam.ac.uk) is the IoA's Public Astronomer and leads our diverse and ambitious outreach programme. Please get in touch with Matt if you would like to get involved.

Student Unions, Committees and Publications

- The Cambridge University Students' Union represents both undergraduate and postgraduate populations in Cambridge and can advise on official University matters, as well as legal, financial, academic and welfare matters.
- The Degree Committee of the Faculty of Physics and Chemistry discuss postgraduate student policy matters and consider postgraduate examination and progress reports.
- Cambridge University Reporter is the University's official journal. It carries notices of official University business, announcements for events, and, in October, the full year's Lecture List.

ED&I

The Equality, Diversity & Inclusion (EDI) Committee

The IoA's EDI Committee includes members from all career stages, including postgraduate students, postdoctoral researchers, academic faculty and professional services staff. See here for a list of useful EDI links. The current co-chairs of the Committee are Amy Bonsor and Simon Hodgkin.

You are expected to take the University's Equality & Diversity Online Training | Equality, Diversity & Inclusion as part of your induction. UKRI Funded Students will also be expected to undertake some additional ED&I Training, details will be shared at the start of term.

To promote a proactive and inclusive approach to equality, the EDI Committee is split into several Focus Groups, which focus on:

Work-Life Balance
- **Inclusion & Fairness**
- **Admissions & Recruitment**
- **LGBTQ+**
- **Women's**
- **Neurodiversity**
- **Bullying & Harassment**
- **Endometriosis Champions**

If you have any questions or are interested in joining any of the Focus Groups, please reach out to edi@ast.cam.ac.uk!

Your first few weeks

Overview

When you arrive in Cambridge there will undoubtedly be many orientation activities prepared for you by your college to welcome you into college and university life. At the IoA, we have also planned a variety of events to introduce you to how the department works and to let you know what you can expect from your time here and what is expected of you as a student. The exact calendar of events will be announced when you arrive,

but you can expect the first few weeks to be filled with meeting many new faces and talking to a great many people. You should subscribe to the Postgraduate Student Google Calendar to keep track of events and activities happening in your first few weeks.

About the Department

The main building is the Hoyle building, where you will find the reception, administrative staff, Hoyle Lecture Theatre (HLT), and many of the staff and students. Behind the Hoyle building are car parks, bike sheds, and the historic Northumberland and Thorrowgood telescopes. At the end of a tree-lined avenue, sits the grand Observatory building, fondly known as *the Obs*, which houses the library and more student, staff and postdoc offices.

The Kavli Institute for Cosmology is joined directly to the Hoyle via a link on the first floor of the Hoyle's Corfield Wing. It houses a mix of University staff, postdoctoral researchers, postgraduate students and visitors to the IoA, the Cavendish Astrophysics Group, and the Department of Applied Mathematics and Theoretical Physics (DAMTP).

Also linked to the Kavli Institute is the Battcock Centre, lying to the south of the Kavli building and linked by a first-floor bridge. While not part of the IoA, the Battcock Centre provides a home to the majority of the Cavendish Astrophysics Group

You may have also heard about our world-famous coffee and tea breaks! Join your fellow students and other members of the IoA for a natter over tea or coffee daily at 11:00 am and 3:30 pm in the Hoyle Foyer. The IoA provides free hot drinks and a selection of biscuits and fruit. It's an excellent chance to network.

Location

The Institute comprises several buildings scattered throughout a wooded site, making for a very pleasant working environment. The main entrance and reception are at the Hoyle Building. South of the Hoyle Building is the APM building, so-called because it used to house the Automated Plate Measuring facility used to digitise and process photographic plates, where the Cambridge Astronomical Survey Unit (CASU) is based. The University Observatory, built in 1823, now houses the library and more offices. Room numbers of the form *H26* are in the Hoyle building, whereas numbers like *O26* refer to the Observatory. Although the University of Cambridge has no real centre and has buildings throughout much of central Cambridge, many of the science departments have, since the mid 70's, been gradually relocating to new sites in the West of Cambridge, conveniently close to the IoA. The Ray Dolby Centre (Physics) and the Computer Laboratory, for instance, are situated just across Madingley Road from the IoA. Also nearby, on Wilberforce Road, is the Centre for Mathematical Sciences (CMS), where weekly cosmology lunches are held. DAMTP now forms part of the CMS.

Arriving at the IoA and Getting Around

How to find us | Institute of Astronomy

The IoA is situated along Madingley Road, West of Cambridge city centre. It takes about 10 minutes by bicycle or 25 minutes on foot to get to the Institute from the city centre. You can also take the Universal (U) bus from Silver Street and alight, about 10 minutes later, on JJ Thomson Avenue. You can check the bus route, fares and schedule online Universal (whippetbus.co.uk).

One of the first things you might want to do is get yourself a bike, especially as College accommodation is sometimes a little off the bus routes. You could try –

Camcycles

The Bikeman

Camtrust

The Travel to Cambridge website has some good suggestions as well.

As a member of the IoA, your University Card, issued by your college, will be programmed within your first few weeks to give you access to all the buildings and telescopes. You may come and go as you please at all hours of the day and night, you are very unlikely to ever find the IoA deserted. The main entrance will be locked between 4pm and 8.30am if you arrive outside of these hours you will need to use your University Card to enter.

The University Security Patrol makes regular rounds of the site, but it is very difficult for the Patrols to effectively police the site if they cannot identify the legitimate members of the IoA. **If you access the building outside of normal working hours, please be sure to sign in.**

In terms of immediate practicalities, you will be assigned an office, usually one shared with other postgraduate students for four years from your start date. If you require a desk for longer than four years you may be asked to relocate to a Hot Desk or temporary office so that we can reallocate your desk to an incoming student. You will also be given a computer account. You should expect several introductions to departmental procedures, introductory meetings with various people, and plenty of chances to meet your fellow students.

Induction

You should have received your induction schedule with your welcome email, it will also be added to the Postgraduate Students Google calendar which you should subscribe to.

Other mandatory training

You will be sent instructions on how to access the Graduate Safety Course which should be completed online as soon as possible. All students must also complete the ED&I Training, you will need your University log in complete this, use the link below:

- Equality & Diversity Online Training | Equality, Diversity & Inclusion

Choosing a Project and Supervisor

Home Students Only -

The most pressing issue on the mind of most PhD students is getting to work on your ground-breaking research. While International Students will have identified a supervisor and a project during the admissions process, for our Home students, the IoA can work a little differently from most departments; some students have the opportunity to explore supervisory/project options before committing to a supervisor and project.

Choosing Your Research Project and Supervisor: A Guide for New Postgraduate Students

1. Meet Potential Supervisors

- Receive a List: You'll get a list of staff members who are potential supervisors along with their research interests.
- Introductory Session: Attend a session in early October where staff interested in taking on students will present their work.

2. Explore Your Options

- Talk to Many People: Spend the first few weeks discussing with a wide range of people.
- Keep an Open Mind: Even if you think you know your research path, explore all options.

3. Utilize Resources

- Fellow Students: Your peers are valuable sources of information.
- Trial Projects: Some staff may be able to support you trying a short project for a month or two before committing.

4. Make Your Decision

- At latest by start of Lent Term: Aim to have chosen a supervisor and have a clear idea of your project by early January.

Please pay particular attention to the **Code of Practice for Research Students.** The Code has been issued by the University's main academic authority, the General Board, to make clear what you should expect during your study in terms of supervision, support, and assessment. Of equal importance, it also sets out what the University and those responsible for your study expect of you. These mutual responsibilities and expectations are intended to provide a framework within which you can flourish on your course.

Other Activities

Other activities within the first few weeks include the compulsory University safety course, tours of the telescopes, and the start of postgraduate lectures. These lectures happen over the first couple of terms and are designed to give you an introduction to topics relevant to your research. Finally, you mustn't forget the annual First Year Curry or Pizza which will allow you to meet the members of the department on a more informal basis.

Computing

The Science Cluster

The Institute's Science Cluster will most likely cater for your day-to-day computing needs during your time here. The cluster consists of computers ranging from individual desktops to shared servers, all running Red Hat Enterprise Linux.

Details of the computer system are available within the Computing section on the IoA Intranet, which is accessible through the IoA VPN and your University account. This is an extensive resource detailing the machines and software available as well as computing policies. You may want to look at the FAQs, look at the User Guide which gives you step by step instructions for specific tasks on the cluster, or use the intranet search to find information.

The cluster offers many software packages ranging from standard web browsers, office suites and image editors to scientific packages (Mathematica, MATLAB, etc.), programming languages, and specialist astronomical software (including ds9, GAIA, IRAF.

Shared Machines
While you will have your own desktop computer, you may wish to run jobs on shared servers which can offer higher performance in terms of multi-core processing and memory. It's worth noting that CPU time on these machines is a shared resource.

Storage
Your account will give you "a reasonable amount" of home disk space (at the time of writing 5GB), available at /home/username. On request, users with a high volume of software source code or documentation can increase their home disk space in chunks of 1GB. Requests, accompanied by a short, one sentence justification, should be sent to Helpdesk (see Requests and Reports). There are other storage disks (usually called "data disks") you can access for your GB/TBs of data (if you have them). If you need a reasonable amount of storage on the data disk, email Helpdesk with your request, or ask your supervisor about unreasonable amounts.

Home directories are backed up weekly; the first backup of the month is kept for 13 months, and subsequent backups are kept for 1 calendar month. In addition to the backups, there are 24 hourly snapshots and 65 daily snapshots. Snapshots provide point-in-time read-only copies of live directories, allowing recovery of previous versions of files or deleted files. Snapshots are located on the same file system as the live directories and are found in the '*.snapshot*' directory (e.g., ~/.snapshot). **Snapshots should not be considered as backups; they are only resilient to file deletion or modification, not other forms of data loss (e.g., disk failure).**

Data directories are not backed up and don't have snapshots taken. The special data directory /data/vault/username, (which can be requested from helpdesk), has a quota of up to 20GB. It has a near real-time copy made to a separate storage server and has a single snapshot taken at midnight, daily.

In unix, the rm (delete) command is unforgiving and will delete the file immediately – at some point you will delete something important, so be prepared! It is usually safer to use 'rm -i' to confirm before you delete if you're not sure. If you do have anything important, it is your responsibility to make sure it is backed up. Memory sticks may be obtained from Helpdesk for this.

Remote Access
The recommended method for accessing IoA systems from outside the IoA network is via the IoA VPN service. Once connected, you can use SSH (Secure SHell) to access the compute nodes and your desktop. For full remote desktop functionality, NoMachine is available and provides access to both your desktop and the Terminal Servers.

If you're unable to use the VPN, we offer two SSH gateways as an alternative. Please note that these gateways only support SSH-based connections such as ssh, rsync, and scp.

Free SSH clients are readily available for Windows (MobaXterm) and most other operating systems and should come built in to Linux and Mac OS X. Linux and Mac clients allow X-forwarding, by using the -X option, while X-forwarding is possible on Windows clients using an X-server such as the freely available Xming or MobaXterm. If you don't understand all this unix terminology, then don't worry, you will soon pick it up and there is more information on the intranet.

High Performance Computing (HPC)

If you find that you need computing resources beyond what is available at the IoA, you may need to look into using the University's High-Performance Computing (HPC) service. This is particularly relevant for compute intensive and/or memory intensive problems and usually involves some sort of parallel computing.

In the first instance, you can discuss with your supervisor whether you might benefit from access to HPC resources. The main two supercomputers at Cambridge are Peta4 and Wilkes2 - collectively known as CSD3. If you would like to get an account for accessing CSD3, please follow the instructions given Getting an account | Institute of Astronomy Intranet (cam.ac.uk) and for help with using the resources take a look at the CSD3 user guide.

University IT account (formally called Raven)

This is the University-wide web authentication service provided by the UIS. Your ID (provided by the central university and the same as your CRSid) with your password is used to authenticate you onto a number of web-based services around the University. Your University IT ID should automatically be added to an access control list to allow you to access the department intranet and room booking system, however if you have any problems, please email Helpdesk.

As a postgraduate student, you should be given your University IT account ID and password by your college.

Email

You will have a departmental email alias, *username@ast.cam.ac.uk*, which forwards email to your central University email address, *crsid@cam.ac.uk*. Your University email account will be on the University's Exchange Online email system.

Personal Web Pages

If you make a folder called public_html in your home directory, you will be able to create your own personal webpages using HTML, PHP and CSS, accessible at people.ast.cam.ac.uk/~username. These pages are in addition to your main department website profile which you can find in the "People" section on the IoA website. To change your profile on the main website, click on the "Log in with Raven" link near the bottom of the page and authenticate with your University account, then click on "Hello name" next to "logout" in the top right corner of the page, then click on the "Edit" tab.

Although you are free to write whatever you like on both these sites, please remember they are IoA and University of Cambridge websites, so don't write anything that might upset either! Violation of the rules will lead to the removal of your pages.

Laptops

We provide desktop machines for all students, but do not provide full specification laptops. The department can loan modest specification laptops to students for use as 'screens' to facilitate remote access to the Institute computer system and monitors whilst travelling, for example. The specification of available laptops is available here. For further information, please contact Helpdesk.

Wireless Networking

Wireless access is provided by the eduroam service which will allow you to access WiFi in Cambridge, as well as worldwide at most universities. It can be difficult to set up when outside of Cambridge, so you should do this before you leave. Eduroam will also work on

mobile phones. Note that Eduroam does not use your University account and password, you need to follow the Connect to eduroam wifi website.

There is also the UniOfCam-Guest network which allows you to quickly connect to the internet whilst in Cambridge. Once you are connected to the network you will need to open a web browser and then log in using your Raven ID.

Wired Networking

If you want to connect your own laptop to the IoA network with a wired connection rather than by the usual wireless connection (see below), you will need to complete a form available upon request from Helpdesk. Once this is complete, you should be able to plug your laptop into most of the network ports on site. Note that not all the network ports are enabled. If you plug into one and nothing happens try another one or contact helpdesk to get that port enabled.

Printing

Printing using the department's printers is free for research-related work and there are photocopiers at various points throughout the IoA. If your laptop is connected into the department network or Eduroam, you can also use that to print to printers in the department. Colour printing is expensive, use the colour printers only when completely necessary.

Zoom

Please refer to the IoA Intranet for details of how to obtain a Zoom Licence.

Slack

We have procured 200 Slack Pro member accounts to use across a newly created departmental workspace (instituteofastronomy.slack.com). Slack is an effective productivity application that encourages and enhances collaboration and communication in large and diverse organisations, whilst cutting down on email. With Slack Pro, there is the benefit of data and messages having no expiry date. Slack is fully customisable, and all notifications can be turned off if you wish. Please use the link in the guidance notes below to register.

Slack Pro joining guidance Sept 2025.pdf

Requests and Reports

You should always submit a request/report of any IT problem or question via a helpdesk ticket.

A ticket ensures that:

1. your problem is formally logged,
2. a specific response will be forthcoming,
3. the knowledge about your problem reaches the appropriate group member rapidly, and
4. the Computer Group does not end up fixing the same issue multiple times for different users who have not used the Helpdesk email facility.

Please contact helpdesk urgently with hardware problems e.g., if a machine has crashed or hung, and do not attempt any direct action of your own which could cause physical damage or data loss. The other reason not to restart the system yourself unless

absolutely necessary is that, although that may clear the fault, it is then much harder to find out what went wrong and hence prevent a repetition of the problem. Please do not email individual Computer Group members, as mail directed to Helpdesk is much more effective and helps everyone.

If you have any general comments or concerns you want to raise about computing in the IoA, the best way to do this is through the Student Reps on the Computer Users Committee (CUC).

CamSIS – Cambridge Student Information system

The Cambridge Student Information System - known as "CamSIS", this is the University's comprehensive system for handling student information, records and transactions. As the official source of student records from application all the way through to graduation, it is used daily by staff, students and alumni to manage and extract student data. It is also major contributor in providing data that helps secure funding for the University.

Further information logging into and using CamSIS can be found - Logging into CamSIS | Cambridge students. You can also find some core training material in Moodle to help you navigate the system.

Research Skills Programme/Graduate Lecture Courses

Researcher Development

A key aspect of the IoA is the breadth of research undertaken and the familiarity of individuals with astrophysical topics that extend well beyond their own specific research specialities. Maintaining a broad overview of astrophysics has been key to the success of the IoA and has tangible benefits for your future career.

Being a research student in Cambridge offers all kinds of opportunities to build skills towards becoming a professional researcher. There are plenty of skills you can gain during your time here which can also be applied in non-research situations, relating for example to personal effectiveness, communication and working with others. As a Postgraduate student in the Institute, you are expected to undertake at least 10 hours of formal researcher development courses each year during the lifetime of your PhD course. There's a wide range of courses to choose from, including some offered by the IoA.

Essential training

First year – some funders have different training requirements which you will be made aware of if applicable.

- Laptop Setup and Introduction to Computing at the IoA
- Introduction to Research Computing (RDC)
- HPC Training
- EDI
- Introduction to Outreach
- Communications Workshop
- Weekly Journal Club sessions

- Weekly Presentation Practice sessions

Optional Courses

You have the option of taking some of the Part III Mathematics courses provided in DAMTP, a number of which are given by IoA Staff. These (typically) 24-lecture courses require a significant commitment in terms of both time and effort. However, particularly for students embarking on certain theoretical PhD topics, attendance at the right course can provide an excellent grounding, of direct relevance to their research. To request access to Part III Mathematics courses, PhD students will need to complete this form for Michaelmas Requests available via the Mathematics Part III Guide to Courses website: https://www.maths.cam.ac.uk/postgrad/part-iii/part-iii-guide-courses. Students can specify which courses they would like to audit (up to a maximum of three). For Part III Physics, please contact the Physics Undergraduate Office undergraduate-office@phy.cam.ac.uk

Cambridge Researcher Development Programme

Your research degree is a time of training during which you will develop the skills needed to become a professional researcher.

The Cambridge Researcher Development Framework (CamRDF) maps out what is involved in conducting up-to-date, professional research, in what is an ever more interdisciplinary and international context. It breaks this down into fifteen competencies, all of which are highly valued and sought after by employers both within and beyond academia.

The work required to complete your research and write your PhD thesis is one part of that process, but you will also be able to learn through formal training and by applying your skills in non-research situations.

Please spend some time looking at what the Cambridge Researcher Development Framework can offer you and watch out for regular emails from the postgraduate administrator with the latest courses and seminars available.

The IoA Library

The Library Office is open 09.30-13.00 Monday to Friday.

Please contact the Librarian in advance if you do not have an Institute enabled pass card.

The Institute of Astronomy library is located in the old Observatory building off the Madingley Road. The library serves all members of staff in the Institute, as well as other members of the University. However, those without an Institute enabled pass card are advised to make an appointment, in order to avoid days when the Library is locked.

The library holds an extensive collection of astronomical books as well as a smaller range of books on related subjects such as physics, mathematics and computing. This is complemented by nearly 250 journal titles as well as an extensive range of observatory publications. Special collections include, rare books, historical photographs and prints, slides, videos and CD-ROMs.

For more details about the library and its use, please see the Library Guide.

The Library uses the Dewhirst classification system.

For an insiders look at the Library join our Facebook Group

The library catalogue can be found here.

Library Contact

M. Hurn, B.A. (Hons.), M.C.L.I.P., M.A., F.R.A.S.
Information Manager

Address: Institute of Astronomy Library,
Madingley Road, Cambridge, CB3 0HA.
Contact form: Library Office
Telephone: (01223) 337537

Academic Events, Talks and Seminars

The IoA attracts many distinguished speakers from around the world to talk about their areas of expertise. In addition, there are a great many resident experts who are often all too happy to share their vast wealth of knowledge with the rest of us.

The main academic events in the week are the departmental colloquia and seminars. These are separate from the postgraduate lecture series and are open to anyone who wants to listen. It is strongly recommended that students attend. One of the things of which you will constantly be reminded is that you should not just follow one narrow line of research, neglecting all other fields of study. This leads to a fairly naïve view of the subject as a whole and will certainly put you in a very weak position when it comes to your viva exam and when applying for postdoctoral positions.

Wednesday Seminars | HLT | 13:15

These consist of a couple of short (half-an-hour maximum) talks given by resident and visiting astronomers on their current research starting at 13:15 pm. They are accompanied by a bread and cheese lunch at 12:30 pm.

During your time at the IoA, you will be required to give a Wednesday seminar about your work. It is expected that you will do this at some point during your second year, and again in your third year. You may also find it beneficial to present some results in your first year—this is good practice for conferences.

Thursday Colloquia | HLT |16:00

On Thursday afternoons are the (more formal) astrophysics colloquia. The colloquium takes place in the Hoyle building lecture theatre at 16:00 pm after afternoon Tea, followed by wine, fruit juice and a selection of nibbles. There is a rota system in place to help with the serving of wine and washing/clearing up afterwards, please make sure that you sign up to help at least once a term. Often, the visiting speaker is taken out to dinner at one of Cambridge's restaurants in the evening, and you are encouraged to go along (and even bribed with a subsidy!) Thursday colloquia generally only run during Full Term. There will also be the opportunity to Meet the Speaker before the talk is given. Please look out for details of this, you will get weekly emails. **It is expected that all first-year students attend Meet the Speaker Sessions.**

Cosmology Meetings

There are regular Cosmology talks & meetings. Details of these can be found here.

DAMTP Astro Mondays | Zoom | 14:00

Astro Mondays run every Monday during term time at 14:00 and feature prominent astrophysicists from across Europe and the rest of the world. these.

PART III AND PHD STUDENTS ARE ENCOURAGED TO ATTEND: We require speakers to pitch their talks at a level that Part III students will learn something!

Student Seminars

In addition to the large departmental talks, there are lots of smaller, less formal discussion groups and talks which are held at varying times during the week. One lunchtime a week (during Term) is usually set aside for student journal club, to which only the postgraduate students are invited. Part way through the year, first-year students give a brief presentation on their work to the existing students at journal club.

Journal Clubs/Group Meetings

Depending on what area you find yourself working in, there are also other journal clubs and meetings focused on one particular area of astrophysics. Most of these are relatively informal meetings, often involving food of some kind to stimulate the discussion process.

New meetings and journal clubs are always springing up and in general people are very welcome to attend these, although asking the meeting host first is always best! The locations tend to vary, so it may be best to check these with existing students before the meeting.

It is also possible for IoA staff, students and visitors to access talks and training delivered by the adjoining Kavli Institute and Battcock Centre, and also the nearby DAMTP and Department of Physics. A full list of schedules can be found on the University of Cambridge Talks website www.talks.cam.ac.uk

Postgraduate Student Forum

Each term representatives from each PhD year group have the opportunity to meet with the Director of Postgraduate Education and the PG Admin team and can raise any issues they or their fellow students are experiencing. You can see the current forum representatives listed on the Moodle site.

Section 2 – Your PhD

Supervisors

A more formal description of you and your supervisors' responsibilities in terms of assessment and feedback can be found in the Code of Practice for Research Students, which you should read.

All research students work under a supervisor, usually a member of the Department's academic staff, though occasionally from the research staff.

Your supervisor's role is to guide your research and monitor progress toward completing your dissertation, they will meet with you regularly.

Supervisors will recommend initial reading and research topics, help you get started, and offer ongoing advice. Some students collaborate closely with their supervisors, while others work more independently but still rely on their supervisor's guidance. When preparing results for publication or drafting your thesis, your supervisor will review and comment on your work. They will also advise on research conduct, proper citation practices, course and conference attendance, and future career steps after your PhD.

Communication

Good communication is vital for a productive relationship with your supervisor, so stay in close contact. Supervisors are often busy, so be proactive—especially if you're stuck or need help. If you can't find your supervisor in person, don't hesitate to email and request a meeting.

Supervisors differ in how they arrange meetings, but general guidelines apply. In your first year, expect to meet weekly to review progress. Later, weekly meetings remain available but may be less frequent depending on your progress (e.g., when working through complex tasks). Informal chats—over coffee can also be useful. In your second and third years, aim for detailed meetings every two to three weeks. During the final writing-up stage, arrange meetings as needed.

Monitoring Progress

Your Supervisor is required to monitor your progress and submit regular formal reports in which they should give an honest but constructive appraisal of your progress. Reports are available to you and your Faculty/Department, Degree Committee, and College in the CamSIS system. You and your College Tutor can submit a response to your Supervisor's report. During each Michaelmas Term you will be asked to complete a self-evaluation of your progress. This will be available to your Supervisor, Department, Degree Committee, and College, all of whom can respond to your report. Supervision and self-evaluation reports are also available to appropriate staff in Education Services who may review them on behalf of the Postgraduate Committee.

Assessment - Your PhD Progress

Year 1

First-Year Report, Registration for the PhD Degree

Formal registration for the PhD degree occurs only after satisfactory completion of the first-year assessment exercise, which involves the completion of an approximately 10,000 word report, to be submitted by the end of June in the first year of study. The precise deadline will be confirmed nearer the time along with instructions for the on-line submission process. The report is not to exceed 10,000 words, including

summary/abstract, tables, footnotes and appendices, but excluding table of contents, photographs, diagrams, figure captions, list of figures/diagrams, list of abbreviations/acronyms, bibliography and acknowledgements.

The report will always contain a proposal for the research to be undertaken during the remaining period of study for PhD, but the content of the bulk of the report is not closely defined. Students should agree the title and outline content of their report with their primary Supervisor during March/April of the first year of study. Examples of the basis for the content of the report include: i) a complete, or almost complete, reearch project, ii) a submitted journal paper, or iii) an extensive critical literature review related to the proposed PhD topic.

Following appointment, two IoA researchers will each make a brief independent report to the Degree Committee on the evidence provided by the progress report and then hold an interview with the student to discuss the content of the report and the plan for future research. The assessors will then submit a joint report and recommendation to the Degree Committee, covering the quality of the report and the student's registration, including any feedback they wish to provide for the student and supervisor(s).

Assessors' and Supervisor's reports

The student's Principal Supervisor will comment on progress in the light of the assessors' feedback and make his/her recommendation to the Postgraduate administration department. If the recommendation is straightforward the Department will register students for the PhD, otherwise the Degree Committee will contact the student and supervisor and advise what steps they need to take next.

The student will see the assessors' report and the Supervisor's report when the assessment has been completed.

Year 2

Research Presentations – during your 2nd year at the IoA, you will be required to give a Wednesday seminar about your work. It is recommended that you take advantage of the opportunity to practice your talk during one of the Presentation Practice sessions held on Mondays during term time.

Second-Year Report - to help students monitor progress towards completion of their PhD thesis, a progress report is also requested in the second year. Submission of this report is usually in June, and interviews will take place during July and August. Written feedback to the student and supervisors is then provided.

Year 3

Third-Year Report/Thesis Plan - a final thesis-plan is requested six to nine months ahead of the planned thesis submission date. In each case the report will be read by two members of staff and an interview with the student will be held to discuss the report. Submission of this report is usually in June, and interviews will take place during July and August. Written feedback to the student and supervisors is then provided.

Year 4

Finances - The University sets the minimum period of study for the PhD degree as three years. Our PhD students are in receipt of funding/scholarship awards with durations from three years up to four years. The IoA does not possess the resources to extend the length of maintenance funding, and all students should be engaged on a PhD topic that is achievable within the length of PhD maintenance funding. If, however, you encounter

health or other difficulties beyond your control that affect your ability to work effectively you should consult the Postgraduate Office (Debbie or the Director of Postgraduate Education) at the earliest opportunity.

Post-thesis submission assistance - PhD students, once they have submitted their thesis remain as students for some time until the examination process has been completed. Recognizing the challenges of finishing mid-academic year, the Institute has long supported students for 2-3 months post-submission with a monthly stipend at the STFC postgraduate rate. The Institute Academic Staff Committee has reaffirmed the desirability of maintaining the support and, on grounds of fairness and transparency, to make support available to all completing students who have spent less than four-years engaged on PhD research.

Supervisors should submit a brief (half-page) request outlining the student's planned work during the funding period to the Postgraduate Office at [post-graduate.admin@ast.cam.ac.uk]. To qualify, the student must a) be attending the Institute of Astronomy frequently b) be working on an agreed research project/task (often completion of a journal paper based on material in the PhD thesis) and c) not have completed four or more years of research since the start of their PhD (The exception here is 4 year CDT students who will have taken 6 months out of their research as part of their placement in industry).

Overrunning - **Why the 4-year rule matters**

- the government collects data on the numbers of students who submit within 4 years. Departments falling below the 70% threshold can lose their studentship funding from Research Councils - this can damage the chances of future students wishing to study here;
- students holding a student visa must complete within the time allowed by their visa.

Help! I'm not going to submit on time

The PhD Submission and Viva

Finally, the most important assessment of them all, your PhD oral examination! The degree of PhD is awarded primarily on the quality of a dissertation of not more than 60,000 words constituting a substantial contribution to original research. The formal criteria that must be met by a PhD are set by the University and listed below:

- a significant contribution to the field of study through the creation and interpretation of new knowledge, connection of previously unrelated facts or the development of new theory or revision of older views;
- submission of work of a quality in whole or in part of a standard to merit publication (whether or not subsequently published);
- provides evidence of the acquisition of knowledge and a detailed understanding of applicable techniques for research and advanced academic enquiry;
- is of a quality and quantity to reflect three years of full-time postgraduate study/five years part-time postgraduate study.

The thesis is assessed critically by two examiners who then conduct an oral examination upon the subject of the thesis and the general field within which it falls. One of the examiners will be a member of staff of the IoA or University (but not your supervisor) and the other will be from an institution outside of the University. Most PhD orals last

between two and four hours. At the end of the viva, normally you will be told whether the examiners are going to recommend the award of the PhD and subject to no, minor, or major corrections to your thesis. Alternative outcomes include a recommendation to revise and resubmit, or an outright fail.

The administration of registrations, submission and examination are handled by the Degree Committee of the Faculty of Physics and Chemistry. The Faculty consists of the departments of Chemistry, Materials Science, Physics and Astronomy. The Degree Committee webpage provides details of the PhD submission process and should be the first port of call if there are any queries regarding procedures.

Preparing to submit your PhD thesis | Degree Committee for the Faculty of Physics & Chemistry (cam.ac.uk)

Final approval for the PhD is conditional on you submitting a hardbound copy of the final version of your thesis for deposition in the University Library, and an electronic copy to the University's institutional repository Apollo. When submitting your electronic thesis, you will need to confirm the appropriate level of access both it and the hardbound should be given.

You are advised to wait until all your corrections have been completed and approved by your Examiner(s) before producing the final version.

In addition to the hardbound copy for the University Library it is also a requirement that you submit an additional copy for the Institute of Astronomy's own library. Funding is available for this, and expense claim and receipt should be submitted to Postgraduate Student Administration who will arrange reimbursement.

Papers, conferences, workshops and travel

Funding conference and workshop costs

All applications for Institute funding whether for Conferences, Workshops, Meetings, Observing or Collaborative visits, will be assessed on merit, should be relevant to your area of research and will generally involve your participation, either by giving a talk or presenting a poster. This is applicable to all students, Home and Overseas, unless your sponsor specifically provides direct funding for conference/workshop attendance. Funding for attendance at events which are considered as *essential to your PhD project* will have been identified at the start of your PhD. Otherwise, we will do our best to help you take advantage of a wide range of opportunities that should help you develop as a researcher.

STFC and some other sponsors provide the Department with a grant to support your research (note that some sponsors will require you to make a specific application before each trip and will reimburse you directly). These funds are intended to cover all the resources, facilities and travel you will require to complete the research for your thesis. The IoA pools these grants and dedicates the resultant funds primarily to student travel, thus you do not have a personal travel budget. Please note that these funds cannot be used to meet the costs of an activity that falls outside of a student's funded period.

- For the duration of your studentship, a total sum of £3,000 is available
- If your sponsor does not provide a total sum of £3,000, the IoA will cover the shortfall.

We try to be very flexible, but you should also take advantage of other sources of funding or potential contributions from your College, from the organisers of conferences and from other possible sources. If another institution has promised to reimburse part or all of your expenditure, it is generally possible to arrange for the IoA to pay the full cost up front and for you to reimburse the Institute when you receive the money.

There are few supplementary sources for travel support, but it is a good idea to join the Cambridge Philosophical Society, which organises seminars and meetings and provides travel grants. The membership fee is modest for students and certain IoA academics can sign the membership nomination form. Philosophical Society grants are only available if you have been a member for more than 12 months. You may also want to consider joining the Royal Astronomical Society, who have grants for situations not covered by other funding agencies. Membership is just £1 for the first year for students. Most Colleges provide some travel and/or book grants, as does the Institute of Physics if you're a member.

Permission to Travel & Requests for Funding

Firstly, you should discuss any opportunities with your Supervisor. Consideration should be given to the relevance to your thesis topic and timing, e.g., would you be better to wait until you have some results to present or is it a suitable time of year in relation to our assessment exercises? If your supervisor is supportive, you should complete the appropriate Permission to Travel Form. You will need to work out roughly how much the trip will cost, including flights, travel to the airport, accommodation, food, etc., and registration fees for conferences. Each trip will be assessed on its individual merit. You might find this infographic useful when budgeting for your trip. Please pay particular attention to the University of Cambridge Guidelines for Sustainable Business Travel.

Permission to travel is required for ALL trips taken outside of the UK even if funding is not required from the department. Permission to travel should be obtained from the Postgraduate Student Office after your supervisor has given her/his support. You should not make any arrangements before obtaining permission from the Postgraduate Office to attend. Failure to obtain permission to travel may result in any expenses and/or insurance claims being rejected.

Arranging Travel

Make sure you check your passport and any visa requirements.

Flights and accommodation can be booked with Key Travel, the University's preferred travel agent, if required. Consult the Postgraduate Office before making any arrangements, who will advise and provide the necessary purchase order.

The following section is due to be updated before 5th December 2025. Please check back for further information.

Travel Insurance **must be obtained through the University and is available free of charge to all staff and postgraduate students travelling on University business. To obtain travel insurance, visit Travel Insurance | Insurance. Full details of the policy are available on this page. Once arranged, please forward the confirmation e-mail to the Postgraduate Office.

Risk Assessments you must complete a risk assessment form and return it to the Postgraduate Office before you travel. Failure to do so will invalidate your travel

insurance. In most cases a low-risk form will be sufficient but if you are unsure, please use the Risk Rating Table for further guidance.**

Observing Trips

As part of your course, you may be required to visit overseas observatories to collect data and learn to use the facilities. For Home students on STFC funding, STFC will generally pay for at least two nearby (La Palma) or one long-haul (Chile or Hawaii) observing trip.

If you are not an STFC student, then funding for observing trips can be more problematic but not impossible. Some other sponsors can be persuaded to contribute but if there is no prospect of other sources of funding, and you have been admitted specifically for an observational project, the IoA will pay for two nearby (La Palma) or one long-haul (Chile or Hawaii) observing trips per student.

If your supervisor suggests you go observing, your first port of call, regardless of who is funding the trip, should be Debbie Peterson or the Director of Postgraduate Education who will guide you through the practicalities.

Please note that students cannot go observing unaccompanied but are required to work with experienced (non-student) observers.

Collaborative Visits

Collaborative visits are less common than observing trips but occasionally, as part of your course, it may be desirable for you to work for a period of time at another institution. This might happen if your Supervisor is spending time working away from the Institute with a colleague at another institution or if another organisation provides specialised training in data handling or other techniques. If your supervisor suggests you make a collaborative visit, please consult Debbie.

Non-STFC-funded students will need to ascertain whether their funding body is willing to cover the cost of collaborative visits to other institutions.

For Observing Trips and Collaborative Visits, you will be asked to complete a brief application form outlining purpose of visit and costs.

Claiming Expenses

To claim back your expenses, fill in an expense form with all relevant receipts and return to the Postgraduate Office for approval. You will generally receive the reimbursement within two to three weeks. You should be careful not to exceed the amount authorised when completing your permission to travel form. If you incur unexpected expenses during your trip, please ensure that you explain the reasons fully when submitting your expenses claim.

Please look at expenses_quick_guide_infographic.pdf (cam.ac.uk) which is a guide to what type of expenses are allowable.

Degree Committee

Departments

The Faculty of Physics and Chemistry includes the Departments of Chemistry, Materials Science & Metallurgy, Physics, and the **Institute of Astronomy**. Each department has its own postgraduate office who provide day-to-day support for students and academics. Primary departmental contacts for postgraduate matters can be found here.

The Degree Committee

The Faculty of Physics and Chemistry entrusts the oversight of its postgraduate programmes to a Degree Committee of up to 19 academics who are representative of the four constituent departments including the Director of Postgraduate Education and Head of Department.

The Degree Committee meets approximately monthly in term-time to discuss postgraduate student policy matters and to consider postgraduate examination and progress reports. It is the awarding body for Masters and (from 1 Oct 2020) PhD degrees and recommends the results for higher degrees to the Postgraduate Committee. Routine matters (such as appointment of examiners, working away and other allowances - as well as most admissions business) are dealt with on a daily basis and are not tied to the meetings schedule. The Committee's policy on delegated and vacation powers is here.

Terms of Reference

Terms of Reference for University of Cambridge Degree Committees can be found in the Statutes and Ordinances (Ordinances, Chapter IX).

The Degree Committee Office

For most purposes, please contact us using the Office's general email address: **degreecommitteePC@admin.cam.ac.uk**

Working while studying

Research postgraduate students

[Note: this guidance does not apply to current University of Cambridge employees who are approved to undertake a postgraduate research degree at the staff fee rate.]

Full-time postgraduate research degrees at Cambridge are academically demanding. Postgraduate Research students are expected to devote around 40 hours per week to their studies throughout the year, except during holidays (up to 8 weeks per year) agreed with their supervisor. They should therefore regard the time spent on their studies as similar to a full-time occupation.

Students are encouraged to balance their academic study with personal interests, extra-curricular activities that enhance their Cambridge experience, and activities that support their wellbeing. The University recognises that some students may also wish to combine their studies with paid or voluntary work.

Before engaging in work, students are advised to give careful thought to what would be realistic and manageable alongside their 40hr/wk full-time study commitment plus any extracurricular activities or other demands on their time. Students are not required to supervise as part of their studies by the University (unless stipulated by funding bodies), and should not feel obligated or pressured to supervise undergraduate students.

Students on a Student/Tier 4 visa must comply with immigration working conditions that restrict the type of work permitted, and ensure they have a formal contract of employment/worker's agreement or similar in place before undertaking any employment including undergraduate supervisions (see information under 'Students holding a Student/Tier 4 visa' below).

Type of work

Work can take many forms, both paid and voluntary, either within the University or in external organisations. Within the University, students usually work in academic-related or voluntary/outreach roles. Examples of academic-related work include supervising undergraduates, invigilating examinations, working in a University/College library, demonstrating in a laboratory, or (for clinicians) working within Cambridge University Health Partners.

Students should engage with some basic training before undertaking any teaching/supervising; to this end, the Cambridge Centre for Teaching and Learning offers training.

Students who wish to work, especially those considering a future career in academia, are encouraged to consider academic-related employment opportunities that may arise. The transferable skills that students receive from academic-related employment are also valuable for other career pathways.

Hours of work

The University recommends limiting work to 6-10hrs/wk. In exceptional circumstances, and to accommodate one-off events, students may be able to combine effective study with longer working hours, but this must only be undertaken after explicit discussion with their supervisor and their college tutor. Even in such exceptional circumstances, students must never exceed a maximum of 20hrs work each week, which includes both paid and unpaid work.

Students may work for more than one employer but must ensure that the combined number of hours worked each week never exceeds the limit allowed. Students are responsible for monitoring the number of paid and unpaid hours they work each week.

The vacation dates used by undergraduate students do not apply to postgraduate research students. Students may take breaks for holiday of up to 8 weeks per year at times agreed with their Supervisor, but such periods should not be used for the purpose of undertaking work.

Permissions

Permission to work is not required, but the University strongly encourages students to discuss their plans in advance with their supervisor, in order to assess any potential impacts on their academic progress. Supervisors can provide advice specific to the student's research activities, stage of their studies, and proposed timeline for completion, as well as helping the student explore how to manage work in the context of their commitments and wellbeing. Students should also discuss their plans with their College Tutor. As stated above, students who wish to work over 10 hours per week must discuss this with their supervisor and their college tutor.

Absence (UKRI Students please see next section)

If you are unable to work for reasons not limited to a medical condition or ill health, you should let your supervisor know at your earliest convenience.

If you are unable to study for more than two weeks due to a medical condition, you should apply for a period of medical intermission; this is a complete break from study for health reasons.

You should discuss this with your supervisor and department and possibly also your College Tutor, before submitting your application.

You should submit your application as soon as you know that you need a break from study. If you are uncertain about how long you will need to intermit for, you should not delay applying as the dates can subsequently be revised - you can indicate your uncertainty in your comments on the application form. Also, you should not wait until you have supporting medical evidence as this can be forwarded later.

Short-Term Medical Absence (postgraduate research only)

If you are or have been unable to study for between 5 and 9 working days inclusive due to medical reasons, you do not need to apply for intermission, as this is reserved for absences of 10 working days (2 weeks) or more. Instead, you should apply for a 'short break in study' via CamSIS. This option is only available to students on postgraduate research courses.

This form records your absence and automatically extends your thesis submission deadline. No medical evidence is required, but you should inform your supervisor before submitting the form. Short-term absences can only be backdated by a maximum of 30 days from the date you make your application.

During a short-term medical absence, you still need to keep term and fulfil residency requirements.

If you are unwell for five days or fewer, you do not need to record your absence or take formal action. We request that you still let your supervisor know, especially if your wellbeing or progress is affected.

If you have any questions about medical intermission, please contact the Student Registry through their help centre: student-registry-help.admin.cam.ac.uk

Absence - UKRI-Funded Students only

This summary outlines the types of leave available to UKRI (STFC) funded students. It also explains how leave should be recorded and when extensions may apply. You should also take the time to read the full Terms and Conditions of your award.

It is important that you let your supervisor know at the earliest opportunity if you require leave for any of the following categories. It may also be helpful for you to keep a record of any leave that is taken and what work has been missed during that time. It will ensure that both you and your supervisor agree with any required extensions.

Family Leave

- Maternity Leave: Birth parent; up to 52 weeks (26 weeks full pay, 13 weeks statutory, 13 weeks unpaid).

- Paternity/Partner Leave: Non-birth parent or partner; up to 2 weeks paid within 52 weeks of birth.
- Adoption Leave: Main adopter or partner; same entitlements as maternity/paternity.
- Neonatal Care Leave: Up to 12 weeks paid if child requires hospital care.
- Parental Leave: up to 1 month each year unpaid leave, with studentship end date extended accordingly.
- Death During Maternity: if you are the partner of a mother or main adopter who dies during or shortly before a period of maternity or adoption leave; equivalent to maternity leave.

Medical Leave

- Illness (physical or mental health)
- Pregnancy-related illness
- Antenatal appointments
- Fertility treatment (if medically advised)
- Disability-related illness or appointments
- Gender reassignment (if medically advised)

You may receive stipend for up to **28 weeks** in a rolling 12-month period, with a maximum of **52 weeks** across the studentship. Medical evidence may be required.

Additional Leave

- Special Leave: Up to 10 days paid for bereavement, pregnancy loss, domestic emergencies.
- Baby Loss Leave: equivalent to maternity or paternity/partner's leave if the baby is stillborn or dies within 52 weeks of birth.
- Carer's Leave: Up to 5 days paid per year.
- Disability Leave: Paid if reasonable adjustments are delayed.
- Health & Safety Leave: Paid if safety concerns prevent study.
- Public Duties: Paid leave for duties including jury service.

Recording Leave

UKRI conditions require all periods of absence to be recorded. What you need to do will depend on the duration and reason for your period of absence.

Absence of 10 days and more	Apply for medical or non-medical intermission (Changes to your student status | Cambridge students) via your CamSIS account. *Complete this form or scan the QR code below to inform the funding administrator about any periods of absence.* The funding administrator will calculate your entitlement to funding during your absence.
Absence of 5-9 days	Apply for a short period of absence (link to website when known) via your CamSIS account.

	Complete this form or scan the QR code below to inform the funding administrator about any periods of absence. The funding administrator will calculate your entitlement to funding during your absence.
Absence of under 5 days	*Complete this form or scan the QR code below to inform the funding administrator about any periods of absence.* The funding administrator will calculate your entitlement to funding during your absence.

Extensions Due to Leave

As a result of some periods of leave you may be eligible for a studentship extension as well as continued payment during the leave itself.

Extensions are mandatory for leave over one month and may be granted for leave over one week. Up to 12 months extension can be approved by the University of Cambridge. Longer extensions or those beyond the grant end date require UKRI approval.

Phased Return

Students returning from non-annual leave may require a phased return plan. This should be agreed with your supervisor and Director of Postgraduate Education and reviewed regularly. Annual leave may be used to support phased return.

Undergraduate Teaching

Supervising is often known as tutoring at other universities and at Cambridge, supervisions typically take place in small groups of two or three students. Supervisions are a key part of the Cambridge undergraduate teaching system and provide an opportunity for students to go through material covered in lectures and discuss the problem sets, typically set by the lecturers, and past exam questions, as well as discussing extended concepts related to the course material.

Astronomy PhD students would usually supervise students studying the Natural Sciences Tripos, the Cambridge degree that includes all science-based subjects, or Mathematics. Usually, each College arranges supervisions for its undergraduates in Parts IA and IB, first and second years respectively. The Director of Studies for the subject in question is responsible for this arrangement. The Director of Studies in your College is probably the first port of call if you are interested in supervising Part IA or IB. You should be able to get their e-mail address from your College website.

The IoA also runs an Undergraduate Astronomy course in the third year, in Part II, of the Natural Sciences Tripos, for which they require supervisors for which calls will be made at the beginning of both Michaelmas and Lent term.

The Physics Department in the Cavendish Laboratory also need supervisors for their Part II and III courses, with courses ranging from core physics (including relativity and thermodynamics) to more specialised Astrophysics courses. If you are interested in supervising for the Physics Department, contact the Undergraduate Teaching Office (undergraduate-office@phy.cam.ac.uk).

Supervising advanced courses such as Part III (honours year) Astrophysics can be very challenging, and if you do decide to do this, be aware that you could be spending a substantial amount of time trying to complete course problem sets and dealing with tricky questions from your students. It is always a good idea to find somebody who has supervised the course in previous years if you need some help. It is a requirement that anyone supervising for Astronomy takes the formal training course for supervisors available through the Researcher Development Programme. More information on and how to sign up for these formal training courses can be found Cambridge Centre for Teaching and Learning - An Introduction to Undergraduate Supervision (Problem Sheet-Based Subjects). If you have already supervised for your Cambridge College, you may have already fulfilled this requirement. There is lots of useful information on the SharePoint Site: UoC Supporting Supervisions - Home

If you are supervising for other departments e.g., Maths, you will most likely be required to attend Department-specific training which supersedes the university-wide sessions described above.

It is normally easier for those who were Cambridge undergraduates to get involved with supervising, simply because they already know the system and the people involved. Supervisions are usually organised before the University term begins, so if you leave it until you arrive it may be too late. You are under no obligation to do any supervising, but it can be a rewarding experience, and a good introduction to teaching from the other side of the desk.

New supervisors receive a payment of £104 in 2025/36 in recognition of the introductory training completed. These are the inter-collegiate rates for supervisions:

Per supervision:

- 1 pupil, £39.21
- 2 pupils, £46.68
- 3 pupils, £56.01
- 4 or more pupils, £65.35

Bear in mind that you should not spend too much time supervising, anything more than four hours a week will probably be too much. Cambridge undergraduate terms are eight weeks long, so your minimum commitment will be a couple of hours a week for eight weeks, though for many courses you would be expected to supervise for all three terms, including revision supervisions before the examinations. Also, remember that you will be taking on an obligation to your students, and that you will have to make sure that you understand the course. Please refer to the guidance on Working While You Study in the above section.

Outreach

The IoA has a diverse and ambitious public outreach programme, led by our Public Astronomer Matt Bothwell (bothwell@ast.cam.ac.uk). All postgraduate students are strongly encouraged to join in with some of the outreach activities, as they provide excellent practice and experience at communicating your subject. This will serve you well when it comes to interviews, professional seminars, giving talks in your College and of course explaining what you study to your family and friends.

Please get in touch if you are interested in getting involved, there are all kinds of different opportunities including:

- Stargazing evenings for troops of brownies/cubs/scouts who visit us in the early evenings as part of their Astronomy badges. Typically, there are several groups per week looking for keen volunteers to answer space questions and show them around the night sky
- Contribution to the IoA's active YouTube channel where we post a lot of public content, including a series of astronomy talks for children, a summer astronomy book club, and a weekly 'ask an astronomer' livestream run by the postgraduate students. If you would like to participate in any of our online outreach events or have any suggestions, please let us know
- School career's fairs
- The Kavli-funded `AstroEast' programme, bringing astronomy to deprived schools across East Anglia

For more information on our activities, look at the IoA's pages dedicated to the Public.

Important dates

- First Year Report – 29 June 2026 tbc
- Second Year Report – 30 June 2026 tbc
- Third Year Report – 30 June 2025 tbc

Terms, Residence, Holidays and Hours of work

Full time PhD Students are expected to work about 40 hours per week. At the IoA we are quite flexible about how you spread these hours, providing your supervisor is agreeable. You can find more information about meeting the University's terms of research and residence requirements Terms, residence and holidays | Degree Committee for the Faculty of Physics & Chemistry.

Students may take up to eight weeks holiday in each year (pro rata for parts of a year), inclusive of public holidays. Leave should not normally be taken during the academic term". However, this is quite a generous entitlement, and students are asked to think carefully about how it would affect their progress before taking extended breaks. In any case, you should always check with your supervisor before planning to be away from the Institute. Please discuss longer holidays and absences from the Institute with Debbie Peterson before making any arrangements.

Term dates | University of Cambridge

Sources of Support

Each person's experience of a PhD is different, but sooner or later everyone encounters a difficult patch and wonders "why am I doing this?" It is a long road, but there are many steps you can take to make life easier for yourself. The University have many departments dedicated to giving help and support to students, please visit the Student Wellbeing website for further information.

Sometimes the problems you face may turn out to be more serious than the regular bumps in the long thesis road. If you do find the pressures of a PhD are getting to you the most important thing is to seek assistance when you need it. This can come in lots of forms depending on the problem and how you would feel most comfortable. Within the department your supervisor or co-supervisor is a good port of call, particularly if it is a work-related problem. Oli Shorttle as Director of Postgraduate Education is also a good contact as he oversees all the PhD students. Some matters are also helped by going to see the support staff—particularly for issues with money, Debbie Peterson and David Savidge are often good points of contact.

You will also have an Academic Adviser. They might not be in the same research area as you and your Supervisor, nor necessarily in the same Faculty/Department but will be able to bring sufficient expertise to your supervisory team to act as a further point of contact for general academic advice. Your Academic Adviser is available if you wish to informally discuss research progress, your personal and research development needs, your research environment or for general advice on research publication.

Your College will assign you a College Postgraduate Tutor, usually called your 'College Tutor' or 'Tutor'. You can find the name of your College Tutor on your CamSIS self-service account. Your College Tutor will offer or signpost you to support for pastoral matters such as illness or difficult personal circumstances. They are also a source of general advice on financial and academic matters. They will normally be very receptive if you drop them an email to arrange a meeting.

The best thing to do is not to stay quiet! If you're having problems, no matter what they are, most people in the department are very approachable and you can turn to anyone who you feel comfortable with.

Postgraduate wellbeing service | Student Support

Need an independent listening ear?

- You can contact the Samaritans service in Cambridge, who you can call any time 24/7, 365 days a year for free by dialling **116 123**.
- If you would like to speak to someone out of hours during term time, you can also contact the University Nightline service (anonymously by live chat, call, email or skype).
- Lifecraft is a user-led organisation for adults in the Cambridgeshire and Peterborough area who have experience of mental health difficulties in their lives. They offer a range of services including Lifeline, a Cambridgeshire and Peterborough mental health helpline contactable between 11am to 11pm every day. Freephone: **0808 808 2121**.

- Shout is a free, confidential, 24/7 text messaging support service for anyone who is struggling to cope. The service is run by trained volunteers, under the supervision of Clinical Supervisors. To access shout, text **85258**.
- Switchboard: LGBTQ+ Helpline. Switchboard's helpline provides an information, support and referral service for lesbians, gay men, bisexual and trans people. To access Switchboard between 10am to 10pm, call **0300 330 0630**.

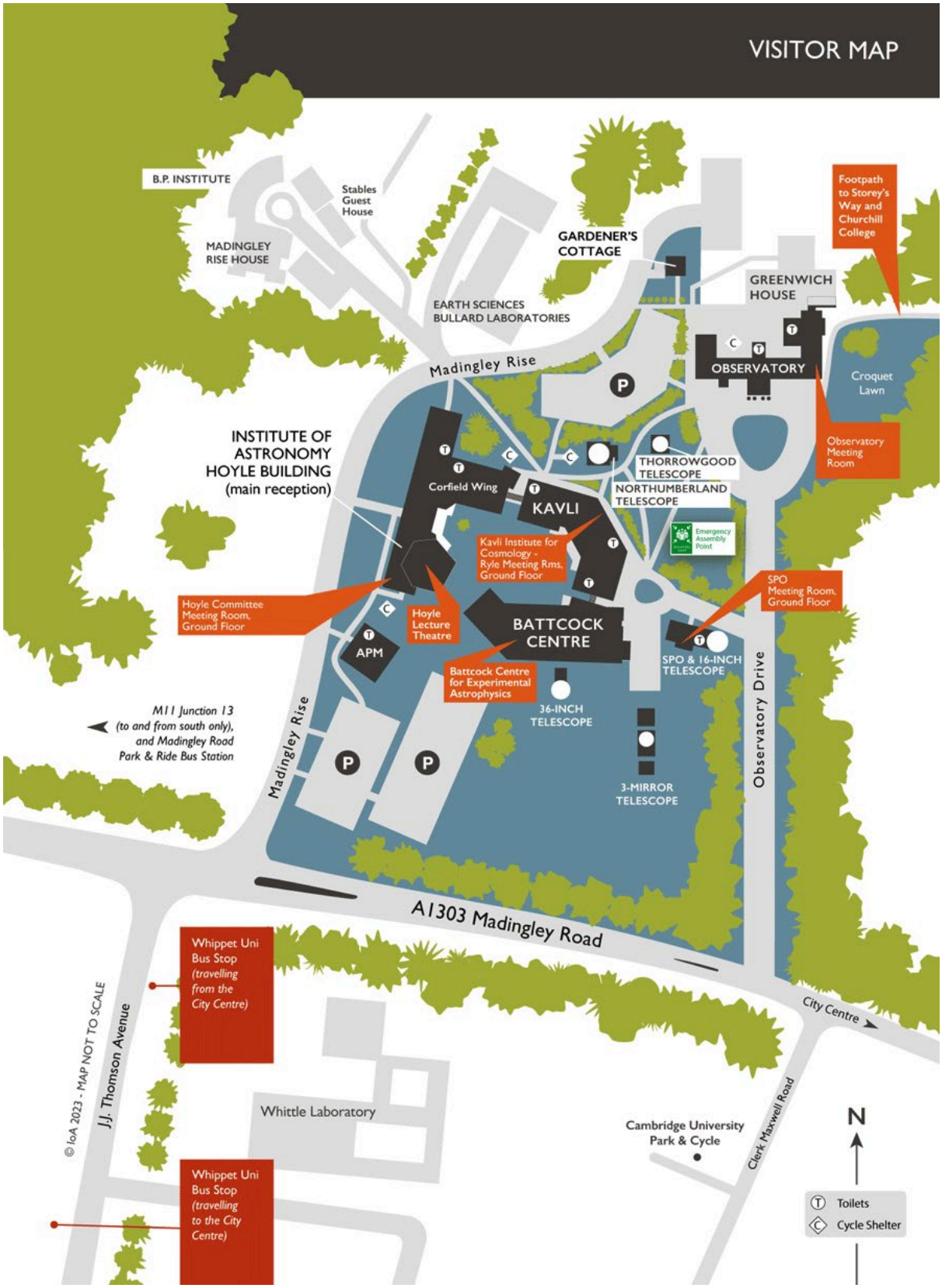
Student Complaints

If you are unhappy with the experience you have received from a University Department, Faculty, service or staff member, the University has a **Student Complaint Procedure** for you to use in order to resolve the situation. All complaints are treated seriously and are handled sensitively. Students will not be disadvantaged for raising a genuine complaint.

We understand that it can be a stressful experience to submit a complaint, particularly when it is about an individual staff member. We recommend that you seek support and advice before submitting your complaint; depending on your circumstances this could be from a College Tutor, a Graduate Tutor, the Student Advice Service or an independent advisor of your choosing.

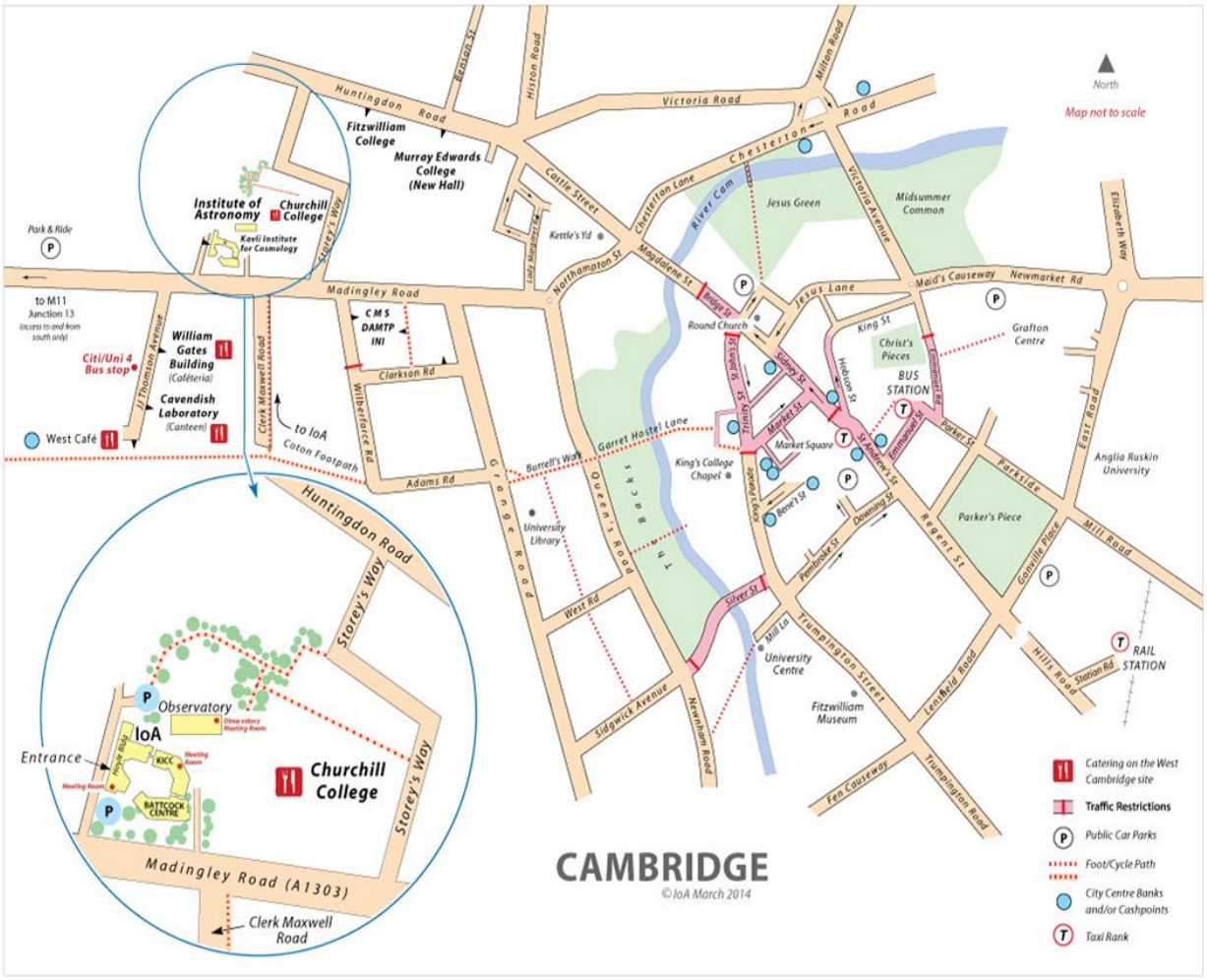
Student Complaints | Student Complaints

APPENDIX A: Map of IoA Site



APPENDIX B:

Map of IoA Within Cambridge



Appendix C: Research Student Timeline

Year 1	
October/November	Induction and welcome events
	PhD student Jamboree
	Research Computing Lecture Course
October/November/December	Explore projects and potential supervisors (STFC students) aim to have made your choice by January.
Michaelmas/Lent/Easter Terms	Attend Journal Club and Practise Presentation sessions Complete EDI Training
April/May	1st Year Review Meeting
30th June	1st Year Report Submission Deadline
July/Aug	1st Year Assessment Meetings
Year 2	
Variable	Give Wednesday Seminar
30th June	End of 2nd Year Report Submission Deadline
July/Aug	End of 2nd year Assessment Meeting
Year 3	
30th June	End of 3rd Year Report/Thesis Plan Submission Deadline
July/Aug	End of 3rd Year Assessment Meeting
Year 4	
Variable	Writing up thesis (aim to do this within your funded period)
6-8 weeks prior to submission	Complete Intention to Submit form
September	Submission deadline
	Vacate office
	Complete leaver form

Useful Safety & Security Information

- Do not open windows before 8am or after 5pm or weekends
- First aider contact numbers 68006 or 01223 768006 from mobile
- First aid boxes if needed but use the plaster dispenser if that is all you require.
- Fire test happens usually once a week in the morning (8am – 9am)
- Always Lock your bike, but not to anyone else's
- Security phone number: 31818 or 01223 331818 from mobile
- Do not use the lifts out of normal hours (8am – 5pm)
- Any maintenance or building issues email custodian@ast.cam.ac.uk
- If you visit out of normal office hours (8am – 5pm), please use the main doors and sign in/out on the sheet by the pigeonholes.

Recycling Bins

Red is only food waste

Blue is card/paper

Green is glass/plastic/metal

Black is non-recyclable